

## Designing Craters: Creating a Deep Impact

# Deep Impact Project Journal

### APPENDIX D: Option 1 – STUDENT JOURNAL HANDOUT

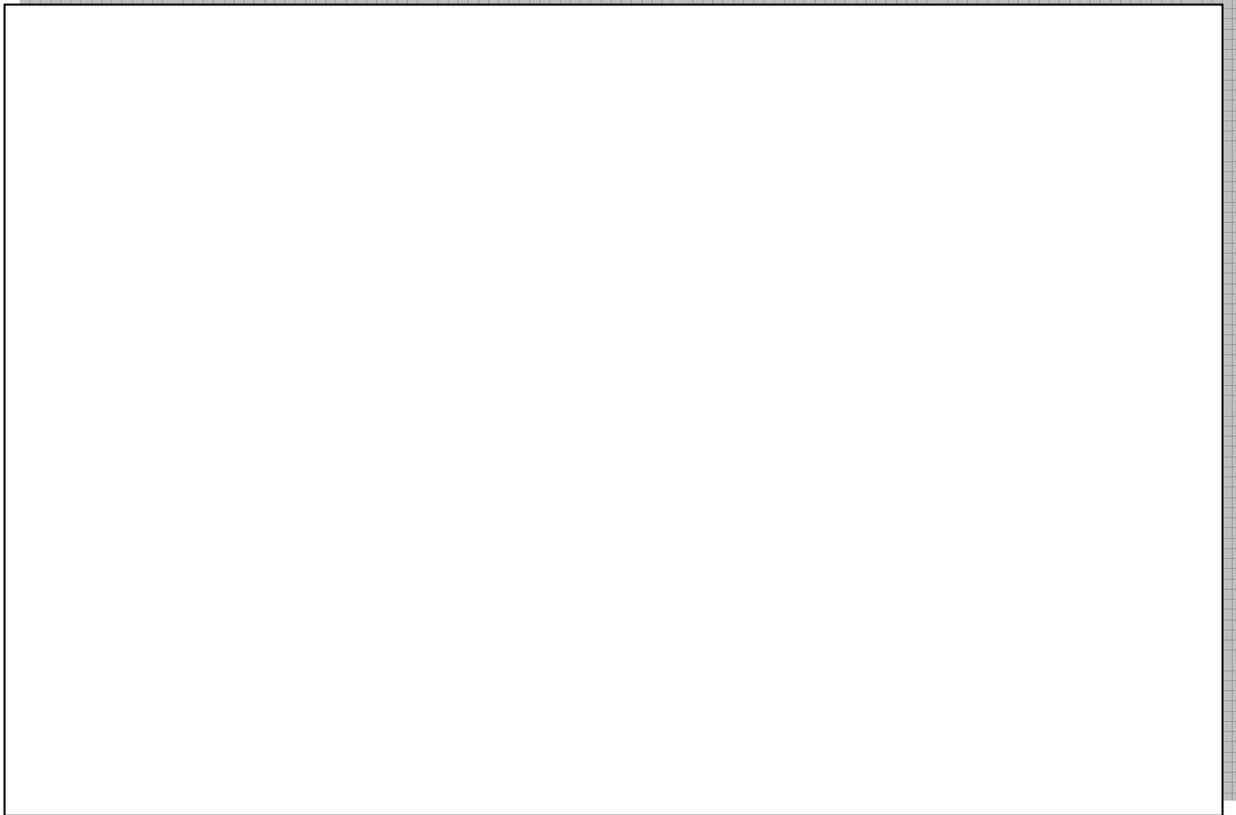
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- PROJECT GOAL:**
1. To figure out how to make a crater of a particular size on a comet
  2. To learn more about the process of science inquiry

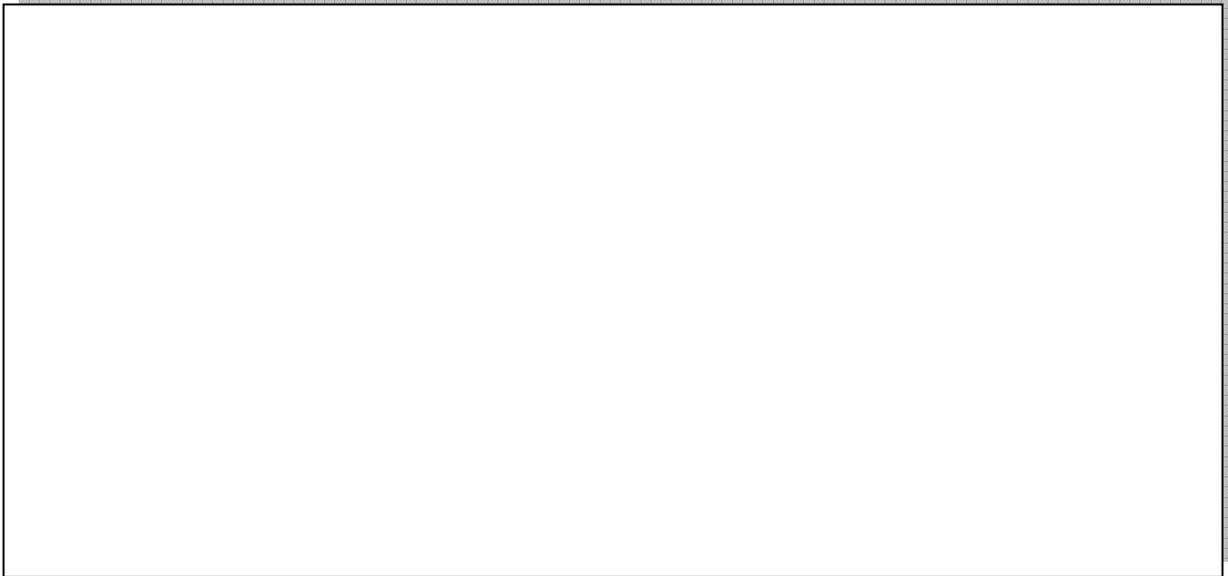
Over the course of the next two weeks, the class will be working toward the project goals. Your project journal will give you a chance to think about how what you did in class each day helps move the class toward those final goals. When you are assigned a journal writing assignment, answer each question as completely as possible, writing down everything you think of as you think about the questions. Taking the time to write complete responses and think about these questions as they are assigned will make the final report much easier to write and will help you focus on what is important each day in class.

#### Assignment 1

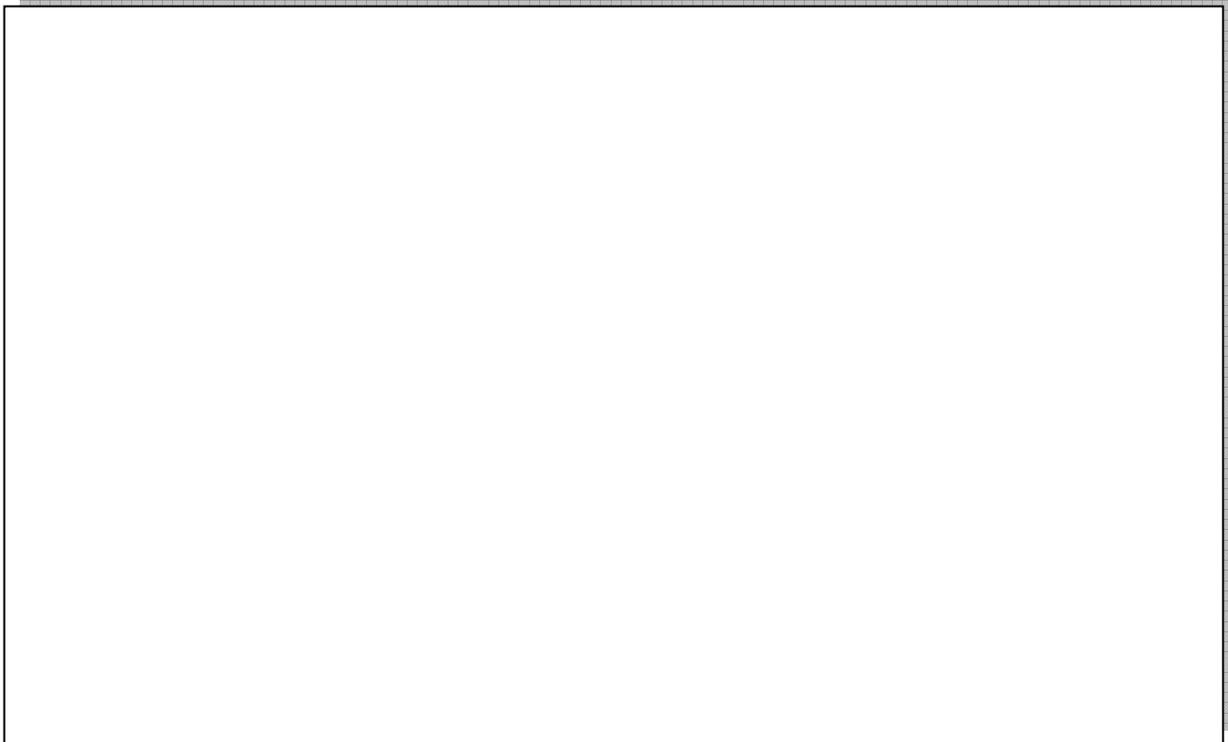
1. Think about the list of possible factors that influence crater size generated by your class. Write a paragraph that explores the following questions: Which factors do you think are the most important factors for determining crater size? Why did you select those factors? And, what effect do you expect those factors to have?



2. If you were designing an experiment to test one of the factors, how would you do it? How would you set it up? What things would you change in each trial? What would you keep the same? What measurements would you make?



3. How did what we did in class today contribute to our goal for the project?

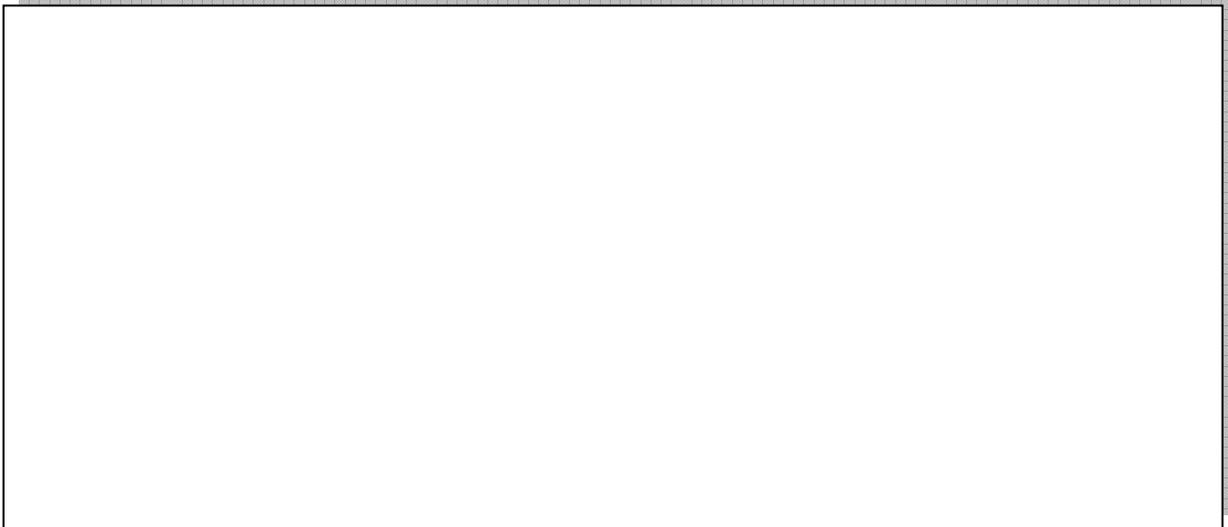


**Assignment 2**

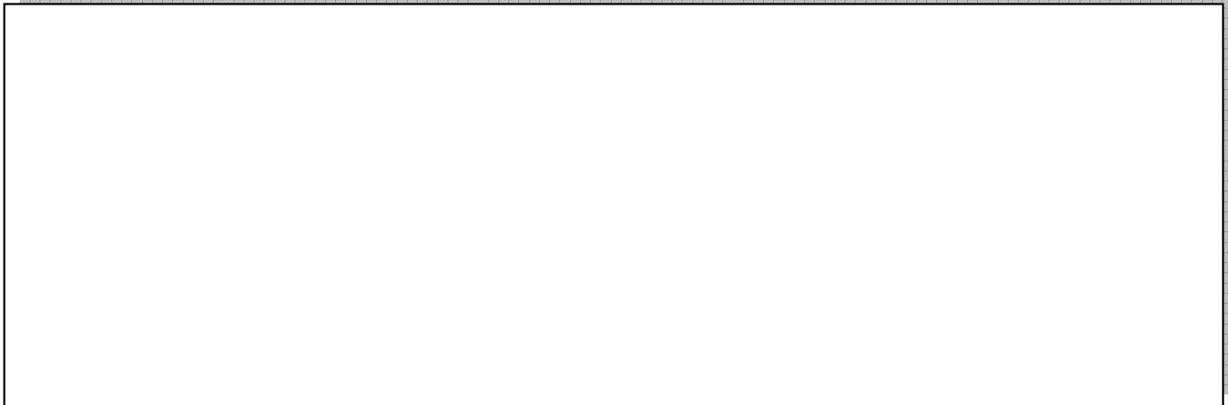
1. What factors seemed to have the most effect on cratering? Why do you think those factors were having an effect?



2. What needs to be done differently from today's exploration to prove that there is a definite relationship between a factor and the crater's size?

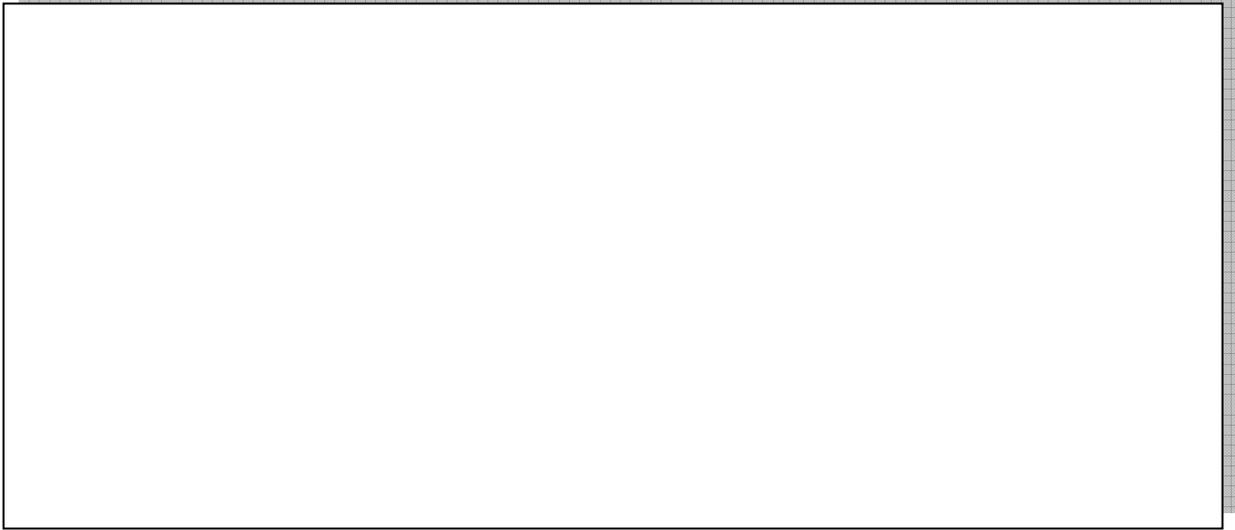


3. How did what we did in class today contribute to our goal for the project?

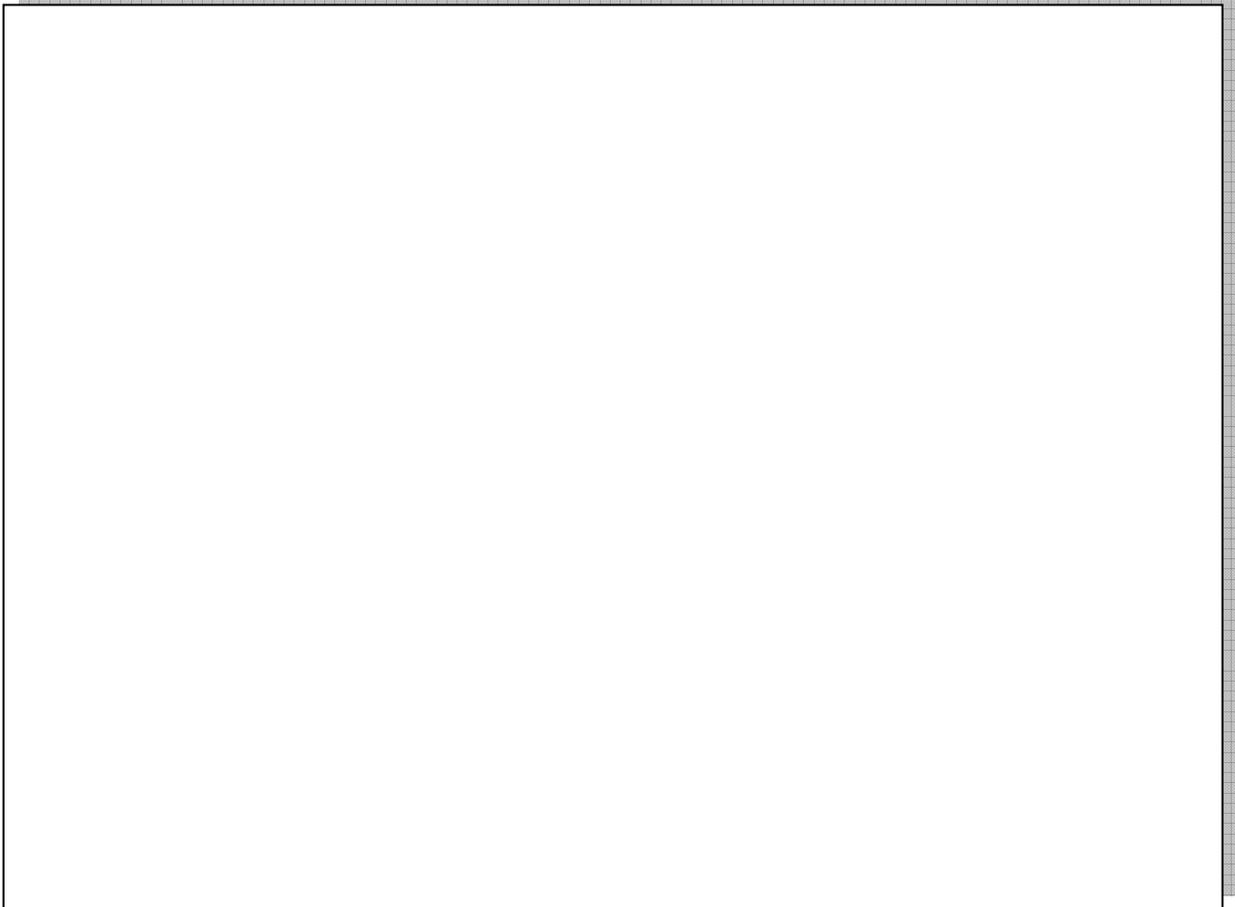


### Assignment 3

1. Why do formal experiments, designed to find a relationship between two quantities, need to be more structured than the initial explorations into cratering we conducted?

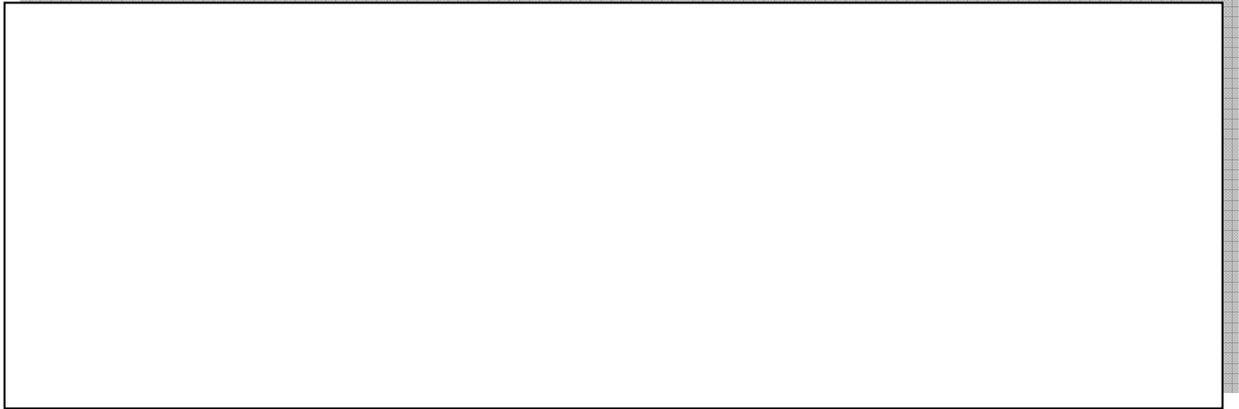


2. What results do you expect to get from your experiment?



**Assignment 4**

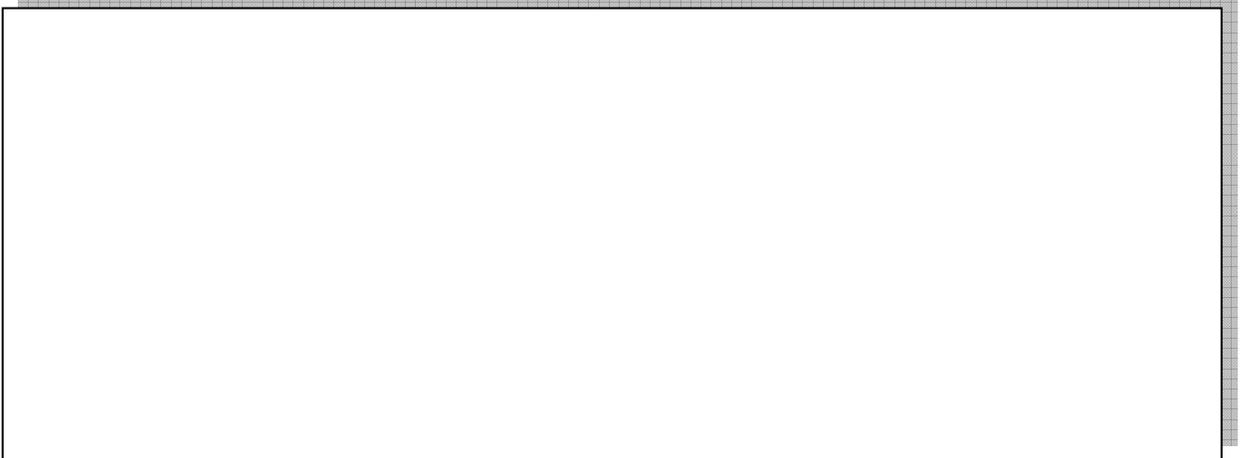
1. Is there anything in your data or experiment that has surprised you so far? Explain your answer.



2. Did your group collect additional data today or research some strange points in your data? If so, what did you find?

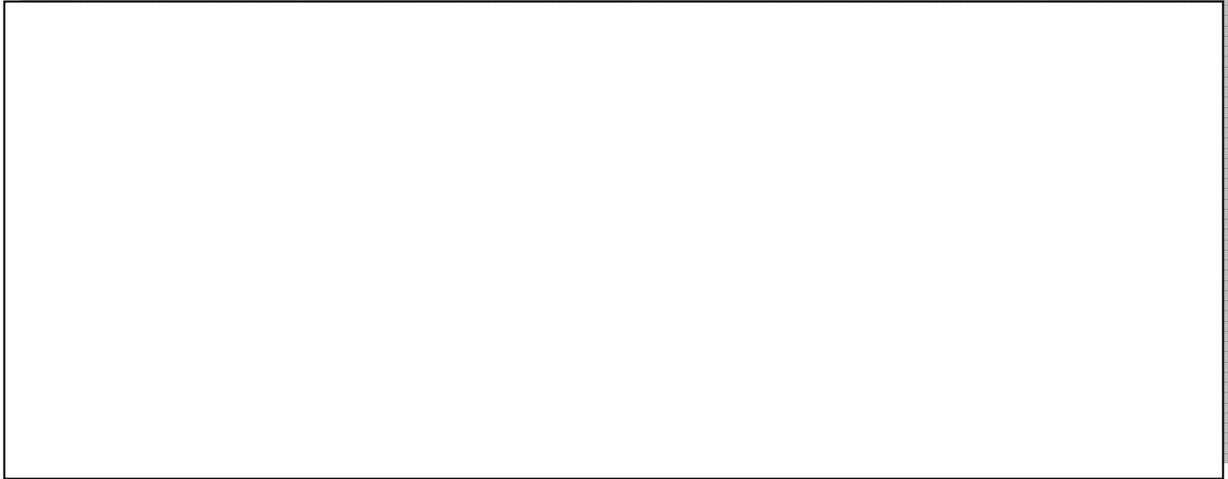


3. How does your experiment contribute to our overall goal for the project?



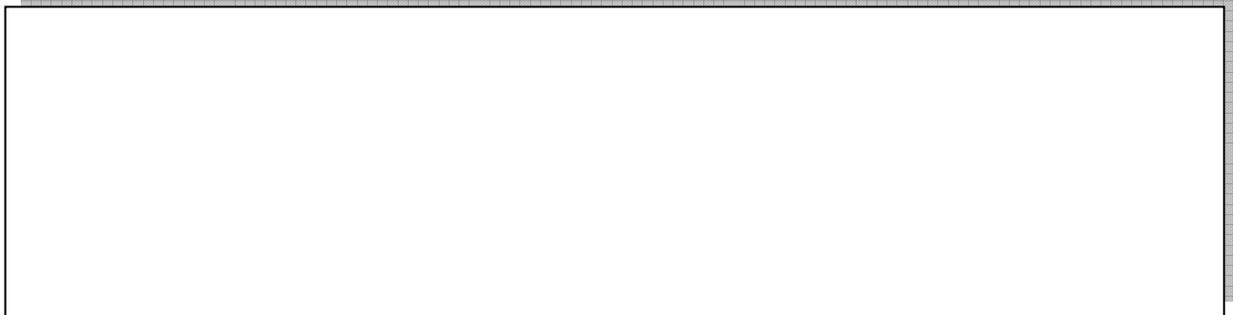
**Assignment 5**

1. Write a paragraph describing what happens during an impact event and the formation of a crater. Include all factors in your answer and discuss why you think those factors are influencing crater size.

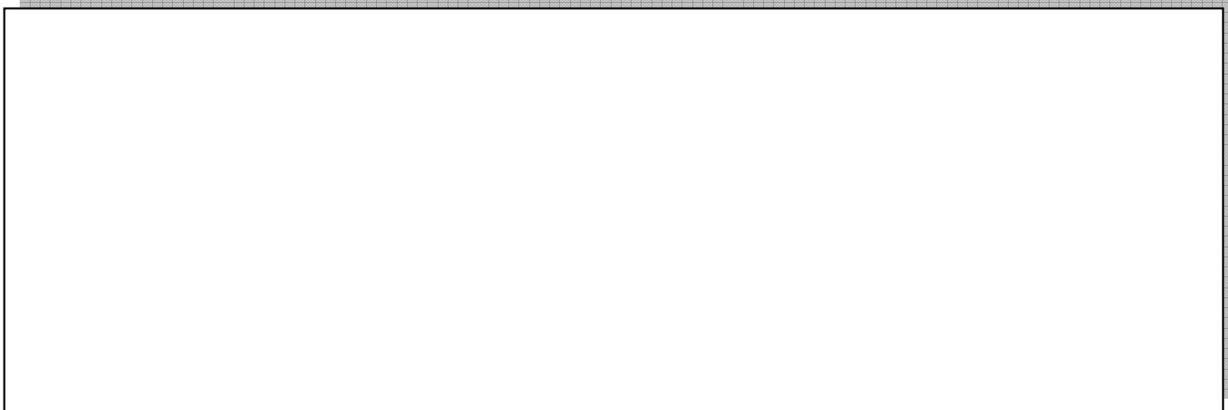


**Assignment 6**

1. Why is it useful to find patterns in data?

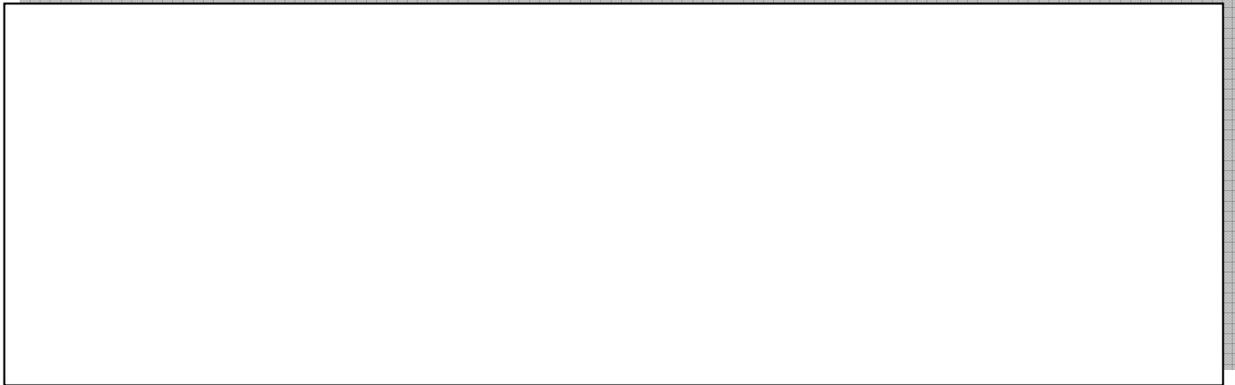


2. How did what you did in class today contribute to our overall goal for the project?



**Assignment 7**

1. How did what you did in class today contribute to our overall goal for the project?



**Other thoughts (optional):**

